



forestry, fisheries & the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

Private Bag X 447 · PRETORIA · 0001 · Environment House · 473 Steve Biko Road, Arcadia · PRETORIA

DFFE Reference: 14/16/12/3/3/1/2533

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Mr Dick Berlijn
Nyahri Solar Power Plant (RF) (Pty) Ltd
P. O. Box 785553
SANDTON
2146

Telephone Number: 001 500 3680
E-mail Address: berlijn@subsolar.co.za

PER EMAIL / MAIL

Dear Mr Berlijn

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, ACT NO. 107 OF 1998, AS AMENDED: FOR THE ESTABLISHMENT OF THE 100MW NYARHI SOLAR (PV) POWER PLANT AND ITS ASSOCIATED INFRASTRUCTURE NEAR VILJOENSKROON, FREE STATE PROVINCE.

With reference to the above application, please be advised that the Department has decided to grant authorisation. The Environmental Authorisation (EA) and reasons for the decision are attached herewith.

Please be advised that powerline grid connection corridor Option 1, which triggered Listed Activities as per GN R 327 (Items 12 and 19) and GN R 324 (Item 14) of the EIA Regulations 2014, as amended, are not approved as per the attached EA since Option 2 is deemed as the preferred option. As such, the applied for Listed Activities as per GN R 327 (Item 12 and 19) and GN R 324 (Item 14) are not authorised.

In terms of Regulation 4(2) of the Environmental Impact Assessment Regulations, 2014, as amended (the EIA Regulations), you are instructed to notify all registered interested and affected parties, in writing and within fourteen (14) days of the date of the decision, of the decision, as well as the provisions regarding the submission of appeals that are contained in the Regulations.

In terms of the Promotion of Administrative Justice Act, Act No. 3 of 2000, you are entitled to the right to fair, lawful and reasonable administrative action; and to written reasons for administrative action that affects you negatively. Further your attention is drawn to the provisions of the Protection of Personal Information Act, Act No. 4 of 2013 which stipulates that the Department should conduct itself in a responsible manner when collecting, processing, storing, and sharing an individual or another entity's personal information by holding the Department accountable should the Department abuse or compromise your personal information in any way.

Your attention is drawn to Chapter 2 of National Environmental Management Act, Act No. 107 of 1998 National Appeal Regulations published under Government Notice R993 in Government Gazette No. 38303 dated 08 December 2014 (National Appeal Regulations, 2014), which prescribe the appeal procedure to be followed.

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Kindly include a copy of this document (National Appeal Regulations, 2014) with the letter of notification to interested and affected parties in this matter.

Should any person wish to lodge an appeal against this decision, he/she must submit the appeal to the appeal administrator, and a copy of the appeal to the applicant, any registered interested and affected party, and any organ of state with interest in the matter within 20 days from the date that the notification of the decision was sent to the registered interested and affected parties by the applicant; or the date that the notification of the decision was sent to the applicant by the Department, whichever is applicable.

Appeals must be submitted in writing in the prescribed form to:

The Director: Appeals and Legal Review of this Department at the below mentioned addresses.

By email: appeals@dfpe.gov.za.

By hand: Environment House
473 Steve Biko
Arcadia
Pretoria
0083; or

By post: Private Bag X447
Pretoria
0001

Please note that in terms of Section 43(7) of the National Environmental Management Act, Act No. 107 of 1998, as amended, the lodging of an appeal will suspend the environmental authorisation, or any provision or condition attached thereto. In the instance where an appeal is lodged, you may not commence with the activity until such time that the appeal is finalised.

To obtain the prescribed appeal form and for guidance on the submission of appeals, please visit the Department's website at https://www.environment.gov.za/documents/forms#legal_authorisations or request a copy of the documents at appeals@dfpe.gov.za.

Yours faithfully



Ms Milicent Solomons
Acting Chief Director: Integrated Environmental Authorisations
Department of Forestry, Fisheries and the Environment
Date: 20/01/2022.

cc:	Ms Lisa Opperman	Environamics CC	Email: lisa@environamics.co.za
	Ms Grace Mkhosana	Free State DEDTEA	Email: mkhosana@detea.fs.gov.za
	Mr Simon Mqawathi	Moghaka Local Municipality	Email: mms@moghaka.gov.za



forestry, fisheries & the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

Environmental Authorisation

In terms of Regulation 25 of the Environmental Impact Assessment Regulations, 2014, as amended

Establishment of the 100MW Nyarhi Solar (PV) Power Plant and its associated infrastructure near
Viljoenskroon, Free State Province

Fezile Dabi District Municipality

Authorisation register number:	14/12/16/3/3/1/2533
Last amended:	First issue
Holder of authorisation:	Nyahri Solar Power Plant (RF) (Pty) Ltd
Location of activity:	Free State Province: <u>Solar Power Plant</u> Portion 1 of the Farm Die Hoek No. 114 Portion 1 of the farm Doornkom-oost No. 447, Doornplaats No. 559 <u>Power Line: Option 2</u> Farm Anglo No. 593, Portion 1 of the Farm Die Hoek No. 114, Farm Groot Vaders Bosch 593, Portion 2 of the farm Zuiping No. 394, Remaining Extent of the farm Zuiping No. 394 within Ward 22 of the Moqhaka Local Municipality

This authorisation does not negate the holder of the authorisation's responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.

Decision

The Department is satisfied, on the basis of information available to it and subject to compliance with the conditions of this Environmental Authorisation, that the applicant should be authorised to undertake the activities specified below.

Non-compliance with a condition of this Environmental Authorisation may result in criminal prosecution or other actions provided for in the National Environmental Management Act, Act No. 107 of 1998, as amended and the EIA Regulations, 2014, as amended.

Details regarding the basis on which the Department reached this decision are set out in Annexure 1.

Activities authorised

By virtue of the powers conferred on it by the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment Regulations, 2014, as amended, the Department hereby authorises –

Nyahri Solar Power Plant (RF) (Pty) Ltd

(Hereafter referred to as the **holder of the authorisation**)

with the following contact details –

Mr Dick Berlijn
Nyahri Solar Power Plant (RF) (Pty) Ltd
P. O BOX 785553
SANDTON
2146

Telephone Number: 001 500 3680

Cellphone Number: (074) 488 488

E-mail: berlijn@subsolar.co.za

to undertake the following activities (hereafter referred to as "the activity") indicated in Listing Notice 1 and Listing Notice 3 of the EIA Regulations, 2014 as amended:

Activity number	Activity description
<p><u>GNR.327, Item 11:</u> <i>The development of facilities or infrastructure for the transmission and distribution of electricity— (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts;</i></p>	<p>The infrastructure for the distribution of electricity will include a power line (132 kV), an on-site HV/MV substation (130 MVA, High Voltage:88/132kV, Medium Voltage: 33kV) and switching station. It is expected that generation from the facility will tie in with either the Mercury-South Vaal 132kV Power Line or the South Vaal-Carrdell 132kV Power Line via a loop-in loop-out connection (technically preferred).</p>
<p><u>GNR.327, Item 14:</u> <i>The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres.</i></p>	<p>The proposed development will need to develop infrastructure for the storage and handling of dangerous goods (diesel and oil) in suitable containers with combined capacity of 80 cubic metres to be located in bunded areas at the construction camp, operation and maintenance buildings and substation/transformer stations. The total capacity will not exceed 500 cubic metres.</p>
<p><u>GNR.327, Item 24 (ii)</u> <i>The development of a road (ii) with reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 meters</i></p>	<p>The perimeter road will be up to 12m in width and will have a total length of ~12km.</p>
<p><u>GNR.327, Item 28 (ii)</u> <i>Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture or afforestation on or after 1998 and where such development (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare.</i></p>	<p>The portions of the affected properties have been used for grazing and pivot irrigation and the properties will be re-zoned to "special" use for the proposed development. The development footprint of the solar power plant will be 246 hectares.</p>
<p><u>GNR.327, Item 56 (ii)</u> <i>The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre (ii) where no reserve exists, where the existing road is wider than 8 metres...</i></p>	<p>The existing access to the affected properties does not have a reserve and will need to be widened by 8 metres.</p>

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<p><u>GNR.325, Item 1</u></p> <p><i>The development of facilities or infrastructure for the generation of electricity from a renewable resource where the electricity output is 20 megawatts or more.</i></p>	<p>The proposed photovoltaic solar facility will generate up to 100 megawatts electricity using a renewable resource.</p>
<p><u>GNR.325, Item 15</u></p> <p><i>The clearance of an area of 20 hectares or more of indigenous vegetation.</i></p>	<p>In terms of vegetation type the site falls within the Vaal Reefs Dolomite sinkhole Woodland (Gh12) and a portion of the grid connection corridor option 1 within the Vaal-Vet Sandy Grassland (Gh10) which is described by Mucina and Rutherford (2006) respectively as 'vulnerable' and 'endangered'. Activity 15 is triggered since portions of the site have not been lawfully disturbed during the preceding ten years; therefore, more than 20 hectares of indigenous vegetation will be removed. The development footprint of the solar power plant will be 246 hectares.</p>
<p><u>GNR.324, Item 4 (b)(i) (ee)(gg)</u></p> <p><i>The development of a road wider than 4 metres with a reserve less than 13,5 metres</i> <i>(b) in the Free State,</i> <i>(i) outside urban areas, within</i> <i>(ee) critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans and (gg) areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve, excluding disturbed areas.</i></p>	<p>Internal roads will not have a reserve and will be 6 in width with a combined length of 15km. The perimeter road of the facility will be up to 12m in width and will have a total length of ~12km. The service road associated with grid connection corridor option 1 will be up to 5m wide and 2.4km in length. The project is located within the Free State Province and falls outside of an urban area, but a portion of the PV development footprint falls within CBA 1 and grid connection corridor option 1 within a CBA 1 and CBA 2 as identified in the Free State 2015 Biodiversity Plan. The project is located within 5km of a protected area in terms of NEMPAA, known as Mispha Game Farm located approximately 1.3km south of the proposed development as per the South Africa Protected Area Database of the Department of Forestry, Fisheries and the Environment.</p>
<p><u>GNR.324, Item 10 (b)(i) (ee)(qq)(hh)</u></p> <p><i>The development and related operation of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic metres</i> <i>(b) in the Free State</i></p>	<p>Dangerous goods will be stored in a bunded area within the construction site during the construction phase. During the operational phase the dangerous goods will be stored in a bunded area within the operations and maintenance areas. The dangerous goods to be stored on site relates to diesel/petrol and oil. The project is located within the Free</p>

<p><i>(i) outside urban areas, within</i> <i>(ee) Critical Biodiversity Areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans, within</i> <i>(gg) areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve, excluding disturbed areas and</i> <i>(hh) Areas within a watercourse or wetland, or within 100 metres from the edge of a watercourse or wetland.</i></p>	<p>State Province and falls outside of an urban area, but a portion of the PV development footprint falls within CBA 1 and grid connection corridor option 1 within a CBA 1 and CBA 2 as identified in the Free State 2015 Biodiversity Plan. The project is located within 5km of a protected area in terms of NEMPAA, known as Mispha Game Farm located approximately 1.3km south of the proposed development as per the South Africa Protected Area Database of the Department of Forestry, Fisheries and the Environment. Furthermore, the Vaal River is located to the north and a valleybottom wetland with a channel is located to the east which are both within 100m of the proposed development.</p>
<p><u>GN R 324. Item 12 (b)(i)(ii)(iv)</u> <i>"The clearance of an area of 300 square metres or more of indigenous vegetation...(b) in the Free State (i) within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004, (ii) within critical biodiversity areas identified in bioregional plans and (iv) areas within a watercourse or wetland; or within 100 metres from the edge of watercourse or wetland.."</i></p>	<p>The proposed development is located in the Free State province and the vegetation on site is classified as being 'endangered' or 'vulnerable'. Portions of the site have not been lawfully disturbed during the preceding ten years. A portion of the PV development footprint falls within CBA 1 and grid connection corridor option 1 within a CBA 1 and CBA 2 as identified in the Free State 2015 Biodiversity Plan. Furthermore, the Vaal River is located to the north and a valleybottom wetland with a channel is located to the east which are both within 100m of the proposed development. The development footprint of the project will be 246 hectares and therefore, more than 300 square meters of indigenous vegetation will be removed.</p>
<p><u>GN R 324; Item 18 (b)(i) (ee)(gg)(hh)</u> <i>"The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre (b) in the Free State (i) outside urban areas, Within- (ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans, (gg) areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from</i></p>	<p>The existing access road to the site will need to be widened by 8 metres. The proposed development is located in the Free State province, outside of an urban area. A portion of the PV development footprint falls within CBA 1 and grid connection corridor option 1 within a CBA 1 and CBA 2 as identified in the Free State 2015 Biodiversity Plan. The project is located within 5km of a protected area in terms of NEMPAA, known as Mispha Game Farm located approximately 1.3km south of the proposed development as per the South Africa Protected Area Database of the Department of Forestry, Fisheries and the Environment. Furthermore, the Vaal River is located to the</p>

the core areas of a biosphere reserve, excluding disturbed areas and (hh) Areas within a watercourse or wetland; or within 100 metres from the edge of a watercourse or wetland."	north and a valleybottom wetland with a channel is located to the east which are both within 100m of the proposed development
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as described in the Basic Assessment Report (BAR) dated May 2022 at:

Farm Name, Portions and 21 Digit SG Code:

Farm name/s, Portions and number/s	SG 21 Code
Solar Power Plant	
Portion 1 of the Farm Die Hoek No. 114	F0360000000011400001
Portion 1 of the farm Doornkom-oost No. 447	F0360000000044700001
Doornplaats No. 559	F0360000000059900000
Power Line: Option 2 (technically preferred)	
Farm Anglo No. 593	F0360000000059300000
Portion 1 of the Farm Die Hoek No. 114	F0360000000011400001
Farm Groot Vaders Bosch No. 592	F0360000000059200000
Portion 2 of the Farm Zuiping No. 394	F0360000000039400002
Remaining Extent of the Farm Zuiping No. 394	F0360000000039400000

Coordinates for the development

Project site		
A	26°56'41.41"S	26°48'17.62"E
B	26°56'56.76"S	26°48'30.08"E
C	26°57'4.15"S	26°48'34.75"E
D	26°57'10.00"S	26°48'39.78"E
E	26°57'15.09"S	26°48'48.53"E
F	26°57'20.13"S	26°48'55.47"E
G	26°57'22.77"S	26°49'3.17"E
H	26°57'56.56"S	26°48'59.66"E
I	26°58'22.19"S	26°48'28.39"E
J	26°58'18.46"S	26°48'7.28"E

Proposed access points		
A	26°56'41.54"S	26°48'17.84"E
B	26°57'15.20"S	26°48'48.72"E
Substation		
A	26°58'14.94"S	26°48'8.27"E
B	26°58'15.83"S	26°48'13.36"E
C	26°58'19.17"S	26°48'12.64"E
D	26°58'18.27"S	26°48'7.54"E
Battery Energy Storage System (BESS)		
A	26°58'11.81"S	26°48'8.19"E
B	26°58'11.85"S	26°48'20.27"E
C	26°58'16.62"S	26°48'20.25"E
D	26°58'14.62"S	26°48'7.89"E
Power Line Corridor – Option 2		
A	26°58'36.86"S	26°47'24.76"E
B	26°58'8.57"S	26°47'25.53"E
C	26°58'8.60"S	26°47'39.94"E
D	26°58'10.41"S	26°47'40.03"E
E	26°58'14.85"S	26°48'8.29"E
F	26°58'18.51"S	26°48'7.49"E
G	26°58'14.57"S	26°47'29.20"E
H	26°58'36.96"S	26°47'28.74"E

- for the establishment of 100MW Nyarhi Solar (PV) Power Plant and associated infrastructure near Viljoenskroon, Free State Province, hereafter referred to as "the property".

The project entails the following infrastructure to be developed:

- PV Panels and associated infrastructure (i.e., inverters, BESS, etc.)
- Power line – 132 kV
- On- site Substation – 130 MVA (High Voltage – 132 kV; Medium Voltage – 33 kV)
- Battery Energy Storage Facility
- Supporting Infrastructure (i. e. office buildings etc)
- Roads
- Fencing

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Technical details of the proposed development

Components	Description/dimensions
Height of PV	6 meters
Area of PV Array	246 hectares (Development footprint) 290 hectares (EIA Footprint – area assessed)
Number of inverters required	Minimum 40
Area occupied by inverter / transformer stations / substations / BESS	Central inverters+ LV/MV trafo: 20 m ² HV/MV substation with switching station: 15 000 m ² BESS: 4 000 m ²
Capacity of on-site substation	132kV
Capacity of on-site substation	132kV
Area occupied by both permanent and construction laydown areas	Permanent Laydown Area: 290 hectares Construction Laydown Area: ~2000 m ²
Area occupied by buildings	Security Room: ~60 m ² Office: ~200 m ² Staff Locker and Changing Room: ~200 m ²
Battery storage facility	Maximum height: 8m Maximum volume: 1740 m ³
Length of internal roads	Approximately 15 km
Width of internal roads	Between 6 & 12 meters
Grid connection corridor width	Up to 250m, with some areas being ~100m wide
Grid connection corridor length	Approximately 1,22 kilometers (Option 2 – technically preferred)
Power servitude width	32m
Height of fencing	Approximately 2.5 meters

Conditions of this Environmental Authorisation

Scope of authorisation

1. The preferred site alternative for the establishment of the 100MW Nyarhi Solar Power Plant and its associated infrastructure located on Portion 1 of the Farm Die Hoek No. 114, Portion 1 of the farm Doornkom-oost No. 447 and farm Doornplaats No. 559, Registration Division Viljoenskroon, Free State Province situated within the Mophaka Local Municipality and the greater Fezile Dabi District Municipality is approved per the geographic coordinates and property details cited in the table above.
2. The Grid Connection Corridor Option 2 located to south-west of the SPP, which will connect the SPP into either the existing Mercury-South Vaal 132kV (maximum length of power line: 1,22km) or the South Vaal-Carrdell 132kV (maximum length of power line:1,18km) via a loop-in loop-out connection is authorised.
3. The option (between existing Mercury -South Vaal, and South Vaal-Carrdell) that is not chosen will automatically fall away and is deemed to longer be part of this authorisation once the final connection point has been pegged, finalised, and agreed upon between the holder of the EA and Eskom
4. Authorisation of the activity is subject to the conditions contained in this Environmental Authorisation, which form part of the Environmental Authorisation and are binding on the holder of the authorisation.
5. The holder of the authorisation is responsible for ensuring compliance with the conditions contained in this Environmental Authorisation. This includes any person acting on the holder's behalf, including but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant or person rendering a service to the holder of the authorisation.
6. The activities authorised may only be carried out at the property as described above.
7. Any changes to, or deviations from, the project description set out in this Environmental Authorisation must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further Environmental Authorisation in terms of the regulations.
8. The holder of an Environmental Authorisation must apply for an amendment of the Environmental Authorisation with the Competent Authority for any alienation, transfer or change of ownership rights in the property on which the activity is to take place.
9. This activity must commence within a period of ten (10) years from the date of issue of this Environmental Authorisation. If commencement of the activity does not occur within that period, the authorisation lapses and a new application for Environmental Authorisation must be made in order for the activity to be undertaken.

10. Construction must be completed within five (05) years of the commencement of the activity on site.

Notification of authorisation and right to appeal

11. The holder of the authorisation must notify every registered interested and affected party, in writing and within 14 (fourteen) calendar days of the date of this Environmental Authorisation, of the decision to authorise the activity.
12. The notification referred to must –
 - 12.1. specify the date on which the authorisation was issued;
 - 12.2. inform the interested and affected party of the appeal procedure provided for in the National Appeal Regulations, 2014;
 - 12.3. advise the interested and affected party that a copy of the authorisation will be furnished on request; and
 - 12.4. give the reasons of the Competent Authority for the decision.

Commencement of the activity

13. The authorised activity shall not commence until the period for the submission of appeals has lapsed as per the National Appeal Regulations, 2014, and no appeal has been lodged against the decision. In terms of Section 43(7), an appeal under Section 43 of the National Environmental Management Act, Act No. 107 of 1998, as amended will suspend the Environmental Authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged you may not commence with the activity until such time that the appeal has been finalised.

Management of the activity

14. A final site layout plan for the power line (with micro-siting of the powerline route and pylon structures) and all mitigation measures as dictated by the final site layout plan, must be submitted to the Department for approval prior to construction. Once approved, the final site layout plan (which contains the final end point of the loop-loop-out connection to either Mercury-South Vaal 132kV Power Line or the South Vaal-Carrdell 132kV Power Line must be appended to Part C of the generic EMPr. The final site layout plan for the power line must indicate the following.
 - 14.1. The final delineation of the centreline of the power line;
 - 14.2. The specific position of the pylon structures and foundation footprints;
 - 14.3. All existing infrastructure on the site, especially roads;

- 14.4. Any sensitive environmental features that will be affected by the power line; and
- 14.5. All "no-go" and buffer areas.
15. A final site layout plan for the PV facility and associated infrastructure, as determined by the detailed engineering phase and micro-siting, and all mitigation measures as dictated by the final site layout plan, must be submitted to the Department for approval prior to construction. A copy of the final site layout map (including the final layout plan as indicated in Condition 12 above) must be made available for comments to registered Interested and Affected Parties and the holder of this environmental authorisation must consider such comments. Once amended, the final development layout map must be submitted to the Department for written approval, prior to commencement of the activity. All available biodiversity information must be used in the finalisation of the layout map. Existing infrastructure must be used as far as possible. The layout map must indicate the following:
 - 15.1. The position of the solar PV panels;
 - 15.2. All associated infrastructure (including the final layout for the powerline);
 - 15.3. The finalised access routes;
 - 15.4. The on-site and/or switching substation, indicating the Independent Power Producer's section and Eskom's section.
 - 15.5. All sensitive features; and
 - 15.6. All "no-go" and buffer areas.
16. The generic Environmental Management Programme (EMPr) for the substation (the relevant section that will be maintained by the Independent Power Producer and Eskom), submitted as part of the BAR dated May 2022, is approved. The final site layout plan of the on-site and/or switching substation, depicting the Independent Power Producer's section and Eskom's section, must be appended to Part C of the generic EMPr for the substation.
17. The generic Environmental Management Programmes (EMPr) for the power line, including the Alien Invasive Management & Rehabilitation Plan, submitted as part of the BAR dated May 2022, is approved. However, once the final loop-in loop-out has been finalised, Part C of the Generic EMPr must be updated to include the updated information.
18. The Environmental Management Programme (EMPr) for the PV facility, submitted as part of the BAR is not approved and must be amended to include measures, as dictated by the final site lay-out map and micro-siting, and the provisions of this environmental authorisation. The EMPr must be made available for comments to registered Interested and Affected Parties and the holder of this environmental authorisation must consider such comments. Once amended, the final EMPr must be submitted to the Department for written approval prior to commencement of the activity.
19. The EMPr amendment must include the following:
 - 19.1. The requirements and conditions of this environmental authorisation;

- 19.2. All recommendations and mitigation measures recorded in the BAR and the specialist reports as included in the final BAR dated May 2022;
- 19.3. A re-vegetation and habitat rehabilitation plan to be implemented during the construction and operation of the facility. Restoration must be undertaken as soon as possible after completion of construction activities to reduce the amount of habitat converted at any one time and to speed up the recovery to natural habitats. This plan must ensure to include drainage features that will be infilled and or excavated;
- 19.4. A storm water and wash water management plan to be implemented during the construction and operation of the facility. The plan must ensure compliance with applicable regulations and prevent off-site migration of contaminated storm water or increased soil erosion. The plan must include the construction of design measures that allow surface and subsurface movement of water along drainage lines so as not to impede natural surface and subsurface flows. Drainage measures must promote the dissipation of storm water run-off;
- 19.5. A traffic management plan for the site access roads to ensure that no hazards would result from the increased truck traffic and that traffic flow would not be adversely impacted. This plan must include measures to minimize impacts on local commuters e.g., limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time and avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations including farming operations;
- 19.6. An erosion management plan for monitoring and rehabilitating erosion events associated with the facility. Erosion mitigation must form part of this plan to prevent and reduce the risk of any potential erosion. This plan must ensure to include drainage features that will be infilled and or excavated;
- 19.7. An effective monitoring system to detect any leakage or spillage of any hazardous substances during their transportation, handling, use or storage. This must include precautionary measures to limit the possibility of oil and other toxic liquids from entering the soil or storm water systems;
- 19.8. A fire management plan to be implemented during the construction and operation of the facility;
and
- 19.9. The final site layout map (as per Condition 13), inclusive of all associated infrastructure for the project.
20. Once approved, the EMPs (for the facility and the generic EMPs for the powerline and substation) must be implemented and strictly enforced during all phases of the project. They shall be seen as dynamic documents and shall be included in all contract documentation for all phases of the development.
21. Changes to the approved EMPs must be submitted in accordance with the EIA Regulations applicable at the time.

22. The Department reserves the right to amend the approved EMPs, should any impacts that were not anticipated or covered in the BAR be discovered.

Frequency and process of updating the EMP

23. The EMP must be updated where the findings of the environmental audit reports, contemplated in Condition 30 below, indicate insufficient mitigation of environmental impacts associated with the undertaking of the activity, or insufficient levels of compliance with the environmental authorisation or EMP.
24. The updated EMP must contain recommendations to rectify the shortcomings identified in the environmental audit report.
25. The updated EMP must be submitted to the Department for approval together with the environmental audit report, as per Regulation 34 of the EIA Regulations, 2014 as amended. The updated EMP must have been subjected to a public participation process, which process has been agreed to by the Department, prior to submission of the updated EMP to the Department for approval.
26. In assessing whether to grant approval of an EMP which has been updated as a result of an audit, the Department will consider the processes prescribed in Regulation 35 of the EIA Regulations, 2014 as amended. Prior to approving an amended EMP, the Department may request such amendments to the EMP as it deems appropriate to ensure that the EMP sufficiently provides for avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity.
27. The holder of the authorisation must apply for an amendment of an EMP, if such amendment is required before an audit is required. The amendment process is prescribed in Regulation 37 of the EIA Regulations, 2014, as amended. The holder of the authorisation must request comments on the proposed amendments to the impact management outcomes of the EMP or amendments to the closure objectives of the closure plan from potentially interested and affected parties, including the competent authority, by using any of the methods provided for in the Act for a period of at least 30 days.

Monitoring

28. The holder of the authorisation must appoint an experienced Environmental Control Officer (ECO) for the construction phase of the development that will have the responsibility to ensure that the mitigation/rehabilitation measures and recommendations referred to in this environmental authorisation are implemented and to ensure compliance with the provisions of the approved EMPs.
 - 28.1.1. The ECO must be appointed before commencement of any authorised activities.

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- 28.1.2. Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department.
- 28.1.3. The ECO must keep record of all activities on site, problems identified, transgressions noted, and a task schedule of tasks undertaken by the ECO.
- 28.1.4. The ECO must remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is ready for operation.

Recording and reporting to the Department

29. All documentation e.g., audit/monitoring/compliance reports and notifications, required to be submitted to the Department in terms of this environmental authorisation, must be submitted to the *Director: Compliance Monitoring* of the Department.
30. The holder of the environmental authorisation must, for the period during which the environmental authorisation and EMPs remain valid, ensure that project compliance with the conditions of the environmental authorisation and the EMPs are audited, and that the audit reports are submitted to the *Director: Compliance Monitoring* of the Department.
31. The frequency of auditing and of submission of the environmental audit reports must be as per the frequency indicated in the EMPs, taking into account the processes for such auditing as prescribed in Regulation 34 of the EIA Regulations, 2014 as amended.
32. The holder of the authorisation must, in addition, submit an environmental audit report to the Department within 30 days of completion of the construction phase (i.e., within 30 days of site handover) and a final environmental audit report within 30 days of completion of rehabilitation activities.
33. The environmental audit reports must be compiled in accordance with Appendix 7 of the EIA Regulations, 2014 as amended and must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the environmental authorisation conditions as well as the requirements of the approved EMPs.
34. Records relating to monitoring and auditing must be kept on site and made available for inspection to any relevant and competent authority in respect of this development.

Notification to authorities

35. A written notification of commencement must be given to the Department no later than fourteen (14) days prior to the commencement of the activity. Commencement for the purposes of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence, as well as a reference number.

Operation of the activity

36. A written notification of operation must be given to the Department no later than fourteen (14) days prior to the commencement of the activity operational phase.

Site closure and decommissioning

37. Should the activity ever cease or become redundant, the holder of the authorisation must undertake the required actions as prescribed by legislation at the time and comply with all relevant legal requirements administered by any relevant and Competent Authority at that time.

Specific conditions

38. No activities, which require a water use authorisation, must be allowed to encroach into a water resource without a water use authorisation being in place from the Department of Water and Sanitation.
39. The applicant must consult with the avifaunal specialist regarding the positions and designs of bird perching/nesting deterrents and powerline markers.
40. The applicant must consult with the avifaunal specialist to identify and mark high avifaunal risk zones along powerlines within 30 km cumulative impact zone and engage with surrounding power line 'owners' and NGOs to investigate the introduction of mitigations (bird deterrents and power line markers) on existing power lines to lessen the cumulative impacts. Implement these mitigations with the guidance of the avifaunal specialist and monitor and report on their effectiveness.
41. The applicant must undertake winter baseline data collection at the same points at which the summer assessment was completed. This data must complete the baseline against which operational impacts and post-decommissioning impacts are measured.
42. Monitoring of implementation of mitigation controls, along with reporting, must be undertaken at least quarterly throughout the construction phase, and bi-annually during the operational phase for the first three years, then every five years thereafter. Monitoring, at the minimum, must consist of:
- 42.1. quarterly monitoring of the PV array area for evidence of PV collisions.
 - 42.2. quarterly monitoring of powerline route for evidence of collisions or electrocutions. Bird fatalities should annually be reported to the Endangered Wildlife Trusts' wildlife and Energy Programme for inclusion on their Central Incident Register.
 - 42.3. bi-annual monitoring of the resident avifaunal population, including priority species, to compare the impacts to the baseline avifaunal community description in this report.

43. Effective restoration of the natural habitats that were intact (i.e., not the fallow fields or planted pasture areas) before the development must be implemented and reported on after decommissioning.
44. The ECO must be made aware that fossils (stromatolites) of the Malmani (Chuniespoort Group, Transvaal Supergroup) has a Very High Palaeontological Significance.
45. When the Nyarhi Power Plant layout has been established a walkdown of the area must be completed by a qualified Palaeontologist to catalogue and photograph well-preserved stromatolites. This action must take place after initial vegetation clearance but before the ground is levelled for construction.
46. If a well-preserved stromatolite outcrop falls in the development footprint the stromatolites ought to be cordoned off and a buffer of 30m must be placed around the outcrop. A representative example of well-preserved stromatolites must be removed and placed near the offices of the PV as an informative example of fossils in the area.
47. Adequate traffic accommodation signage must be erected and maintained on either side of the access, on the gravel road, throughout the construction phase of the Nyarhi SPP.
48. Traffic accommodation signage must also be erected at affected major intersections on the transportation routes.
49. The walk-down report must be submitted to SAHRA prior to ground levelling activities for construction. No construction may commence without comments from SAHRA in this regard.
50. A permit application must be made in terms of section 35 of the National Heritage Resources Act (NHRA, Act 25 of 1999) for the removal of stromatolite samples from site prior to the construction phase.
51. A detailed Geotechnical Assessment must be undertaken for the development footprint, with specific focus on areas with dolomite grassland, as part of the micro-siting of the layout.
52. An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling, re-use and disposal where appropriate. Any solid waste must be disposed of at a landfill licensed in terms of Section 20 (b) of the National Environment Management Waste Act, 2008 (Act No.59 of 2008).

General

53. A copy of this Environmental Authorisation, the audit and compliance monitoring reports, and the approved EMPr, must be made available for inspection and copying-
 - 53.1. at the site of the authorised activity;
 - 53.2. to anyone on request; and
 - 53.3. where the holder of the Environmental Authorisation has a website, on such publicly accessible website.

54. National government, provincial government, local authorities or committees appointed in terms of the conditions of this authorisation or any other public authority shall not be held responsible for any damages or losses suffered by the holder of the authorisation or his/her successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the holder of the authorisation with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.

Date of Environmental Authorisation: 20/01/2022



Ms Milicent Solomons

Acting Chief Director: Integrated Environmental Authorisations

Department of Forestry, Fisheries and the Environment

Annexure 1: Reasons for Decision

1. Information considered in making the decision

In reaching its decision, the Department took, *inter alia*, the following into consideration -

- a) The listed activities as applied for in the application form received on 20 April 2022.
- b) The information contained in the BAR dated May 2022.
- c) The comments received from the Eskom, Department of Sport, Arts, Culture and Recreation: Free State Province, South African Heritage Resources Agency (SAHRA), South African Radio Astronomy Observatory (SARAO), South African Weather Service, SENTECH and other I&AP's and interested and affected parties as included in the BAR dated May 2022.
- d) Mitigation measures as proposed in the BAR and the EMPr.
- e) The information contained in the specialist studies contained within the appendices of the BAR dated May 2022 and as appears below:

Name of Specialist	Title of specialist report/ s as attached in FBAR	Date issued
Dr BJ Henning	Terrestrial Biodiversity, Plant and Animal Species Impact Assessment	March 2022
Dr BJ Henning	Wetland/Riparian Impact Assessment	March 2022
ASH Haagner	Avifauna Impact Assessment	March 2022
Johan Botha	Visual Impact Assessment	April 2022
Johan Lanz	Agricultural Impact Assessment	April 2022
JA van Schalkwyk	Heritage Impact Assessment	April 2022
Elize Butler	Paleontological Impact Assessment)	April 2022
Johan Botha	Social Impact Assessment	April 2022
Liza Botha	Traffic Impact Assessment	March 2022

2. Key factors considered in making the decision

All information presented to the Department was taken into account in the Department's consideration of the application. A summary of the issues which, in the Department's view, were of the most significance is set out below.

- a) The findings of all the specialist studies conducted and their recommended mitigation measures.

- b) The proposed project is intended to form part of the Department of Mineral Resources and Energy's (DMREs) Renewable Energy Independent Power Producer Procurement (REIPPP) Programme or any other appropriate energy generation programmes / opportunities. The REIPPP Programme aims to secure 14 725 Megawatts (MW) of new generation capacity from renewable energy sources, while simultaneously diversifying South Africa's electricity mix.
- c) The BAR dated May 2022 identified all legislation and guidelines that have been considered in the preparation of the BAR.
- d) The location of the project.
- e) The methodology used in assessing the potential impacts identified in the BAR dated May 2022 and the specialist studies have been adequately indicated.
- f) A sufficient public participation process was undertaken, and the applicant has satisfied the minimum requirements as prescribed in the EIA Regulations, 2014 as amended for public involvement.

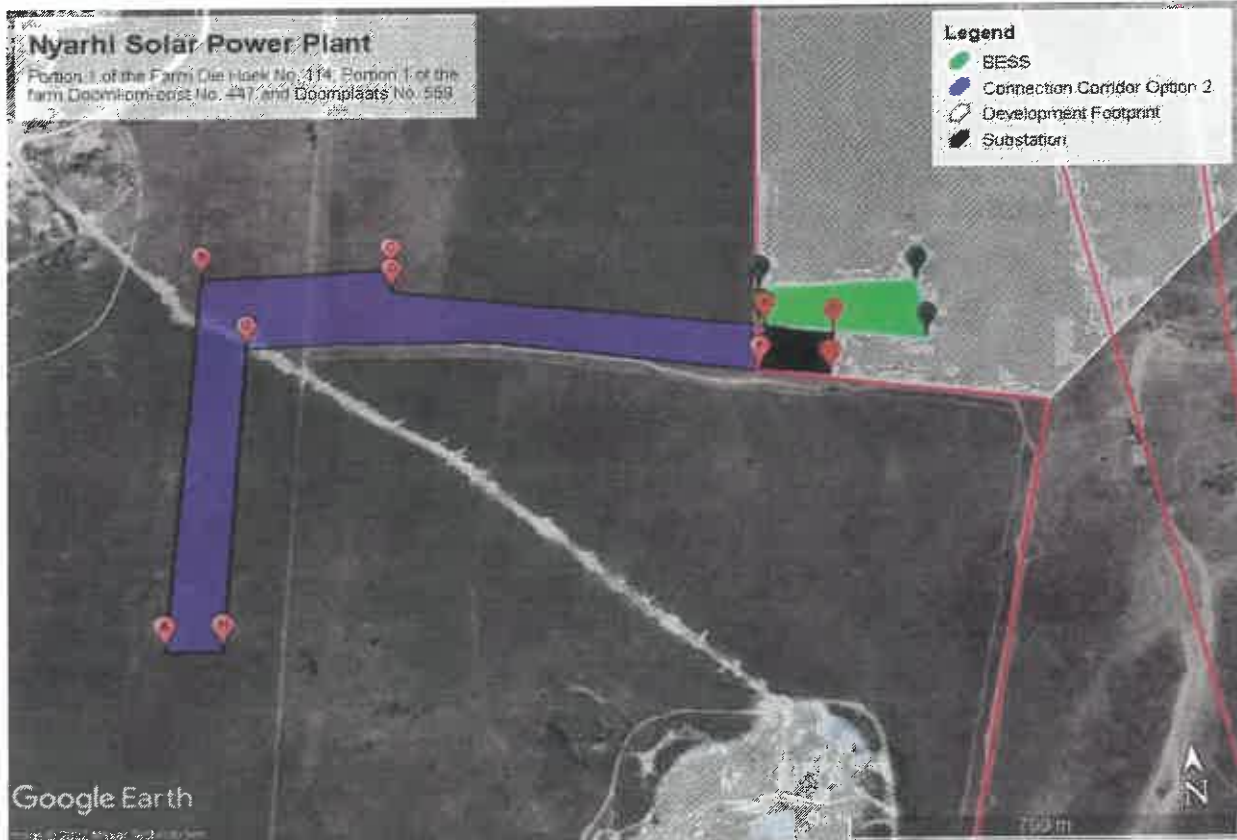
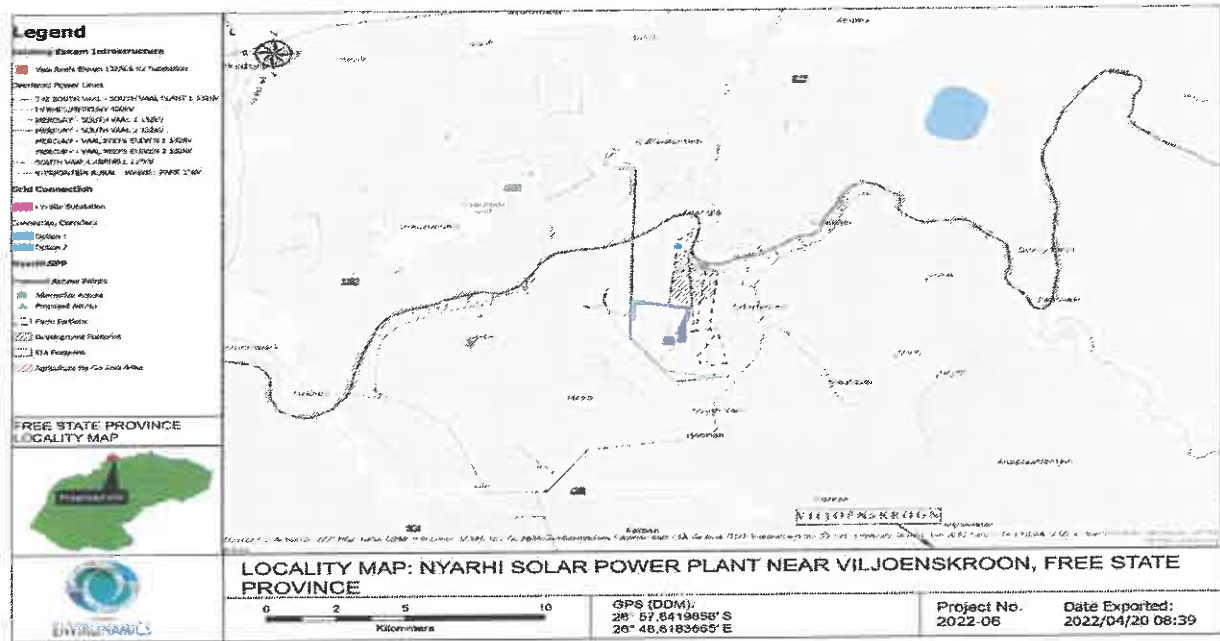
3. Findings

After consideration of the information and factors listed above, the Department made the following findings -

- a) The identification and assessment of impacts are detailed in the BAR dated May 2022 and sufficient assessment of the key identified issues and impacts have been completed.
- b) The procedure followed for impact assessment is adequate for the decision-making process.
- c) The information contained in the BAR dated May 2022 is deemed to be accurate and credible.
- d) The proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.
- e) EMP measures for the pre-construction, construction and rehabilitation phases of the development were proposed and included in the BAR and will be implemented to manage the identified environmental impacts during the construction phase.

In view of the above, the Department is satisfied that, subject to compliance with the conditions contained in the environmental authorisation, the authorised activities will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental Management Act, 1998 and that any potentially detrimental environmental impacts resulting from the authorised activities can be mitigated to acceptable levels. The environmental authorisation is accordingly granted.

Annexure 2: Locality Plan



Map indicating coordinate points of the proposed Nyarhi Solar Power Plant proposed power line corridor, BESS and the substation for connection option 2 (technically preferred).

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**forestry, fisheries
& the environment**

Department
Forestry, Fisheries and the Environment
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Ms. Milicent Solomons
Director: Prioritized Infrastructure Projects

Dear Mrs Solomons

**APPOINTMENT AS ACTING CHIEF DIRECTOR: INTEGRATED ENVIRONMENTAL AUTHORIZATIONS
FOR THE PERIOD OF 25 APRIL 2022 UNTIL 31 OCTOBER 2022**

I hereby inform you that I have decided to appoint you as the Acting Chief Director: Integrated Environmental Authorizations for the period of 25 April to 31 October 2022 whilst Mr Sabelo Malaza is fulfilling his temporary reassignment function at the Forestry Branch.

All the correspondence and other documents that are usually signed by the Chief Director: Integrated Environmental Authorizations must be signed under Acting Chief Director: Integrated Environmental Authorizations during the above-mentioned period.

Your appointment in the above acting position remains subject to the provisions of the Public Service Act, 1994 (Proclamation No. 103 of 1994), as amended, the Government Employees Pension Fund Act, 1996 (Proclamation No. 21 of 1996), the regulations promulgated under these Acts and relevant circulars.

In the execution of your duties and the exercising of the powers delegated to you, you will furthermore be subjected to the provisions of the Public Finance Management Act, compliance with the Promotion of Access to Information Act, Promotion of Administrative Justice Act, the Minimum Information Security Standard, Departmental Policies and other applicable legislations with the Republic of South Africa. You are therefore advised to make yourself familiar with the provisions of these legislations and policies and the amendments thereof. (Copies of Departmental policies can be obtained from the Human Resource Office).

Please accept my heartfelt gratitude for all your assistance on behalf of the department.

Yours sincerely

Ms Devlinagie Bendaman
Deputy Director-General: RCSI (Regulatory Compliance and
Sector Monitoring)

Date 20 April 2022

ACKNOWLEDGEMENT

I ACCEPT / ~~DO NOT ACCEPT~~
appointment as Acting Chief
Director: Integrated Environmental
Authorizations

Signed:

Date:

20/04/2022